

Medical Advances in Caring for Geriatric Patients

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One of the key demographic features challenging almost all countries is the rapid growth of population aging. Thus, "Global Aging" presents challenges to all social and financial systems. The impact of this unprecedented population change puts special pressures on health systems. Like many other developed countries, Taiwan's aging population is growing at an unprecedented rate. For example, in 2010 approximately 11% of Taiwan's population is age 65 years and older. Some projections suggest that by 2050, 35% of the Taiwanese population will be age 65 years and older. Presently, Taiwan has the most rapid increment in the proportion of older persons, second only to that seen in Japan.

The experience of some Western countries that have already reached levels of older persons of 18-30% suggest three areas of special concern that directly impact the practice of Internal Medicine, and these will be the focus of my presentation. These are: the emergence of cognitive disorders, especially Alzheimer's Disease, Physical Frailty leading to disability, and targeted Preventive measures for older adults.

Alzheimer's Disease (AD): It has been estimated that dementia affects more than 160,000 people in Taiwan (twice as many as 15 years ago). With the rapid aging of the population, this number will grow exponentially. Although treatment options are currently limited, there is general agreement that early diagnosis is important both for prognostic and treatment decisions. Therefore, every internist should be able to screen for cognitive disorders in the office through the use of standard questionnaires that have been validated in most of the world's major languages. The Mini-Mental Status Test remains a gold standard but other tools are also valid and may allow earlier diagnosis. Data from a recent American College of Physicians endorsed study on the office utility of such testing will be discussed. When conventional drug treatment is prescribed, it is mandatory to have full understanding that the primary mechanism of action of most currently approved agents is to inhibit cholinesterase activity, and thus may adversely interact with many other pharmacologic agents commonly used by older adults. A key emerging concept is that AD is a chronic disease with certain death, and that the ability to estimate life expectancy is important so that at the appropriate time treatment can be palliative and aimed at comfort and avoidance of unproductive interventions. New information regarding estimation of prognosis will be discussed.

Frailty: This geriatric "syndrome" is generally defined as a biological syndrome of decreased reserve and resistance to stressors, resulting from cumulative declines across multiple physiologic systems. In its earlier clinical stages, frailty is not synonymous with disability, and may be amenable to physician-instituted interventions. Simple office-based tests of physical performance will be demonstrated. Recent studies in Taiwan suggest that the prevalence of frailty may be somewhat less than in Western countries, with 5% of the over 65 population qualified as "frail", but with another 40% "pre-frail. Interventions that are effective include careful review of drug regimens aimed at reducing or eliminating contributory factors. Frailty may be amenable to exercise programs as well to be discussed below. An important

sequel of frailty states is a propensity for injurious falls, especially fragility hip fractures which carry a substantial mortality. Strategies that have been proven to reduce falls require careful physician supervision.

Prevention: Primary and secondary prevention are emerging as important strategies in reducing functional decline among older adults. The United States Preventative Services Task Force is constantly revising approved strategies and differentiating these from those useful in younger patient populations. Less attention is focused on screening and elimination of cardiovascular risk factors. Perhaps the key strategy that is being emphasized is targeted exercise programs aimed at reducing sarcopenia, improving balance and lower extremity strength. Also, more attention is being focused on various strategies to “exercise” the brain through the use of music, mental puzzles, and socialization. None of these strategies has wide-spread acceptance unless strongly endorsed by primary care physicians.

As each of our countries embrace the challenge of providing medical care to our older populations, newer strategies are being developed. The active research programs in Taiwan are increasingly important in added to the world’s expertise in improving health care for older adults.